General

Guideline Title

The role of endoscopy in the management of acute non-variceal upper GI bleeding.

Bibliographic Source(s)

Hwang JH, Fisher DA, Ben-Menachem T, Chandrasekhara V, Chathadi K, Decker GA, Early DS, Evans JA, Fanelli RD, Foley K, Fukami N, Jain R, Jue TL, Khan KM, Lightdale J, Malpas PM, Maple JT, Pasha S, Saltzman J, Sharaf R, Shergill AK, Dominitz JA, Cash BD. The role of endoscopy in the management of acute non-variceal upper GI bleeding. Gastrointest Endosc. 2012 Jun;75(6):1132-8. [79 references] PubMed

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Adler DG, Leighton JA, Davila RE, Hirota WK, Jacobson BC, Quereshi WA, Rajan E, Zuckerman MJ, Fanelli RD, Hambrick RD, Baron T, Faigel DO. ASGE guideline: the role of endoscopy in acute non-variceal upper-GI hemorrhage. Gastrointest Endosc 2004 Oct;60(4):497-504.

Recommendations

Major Recommendations

Definitions for the quality of the evidence (++++, +++O, ++OO, and +OOO) and for the strength of the recommendations ("recommends" or "suggests") are provided at the end of the "Major Recommendations" field.

- The Practice Committee recommends that patients with upper gastrointestinal bleeding (UGIB) be adequately resuscitated before endoscopy. (+OOO)
- The Practice Committee recommends antisecretory therapy with proton pump inhibitors (PPIs) for patients with bleeding caused by peptic ulcers or in those with suspected peptic ulcer bleeding awaiting endoscopy. (++++)
- The Practice Committee suggests prokinetic agents in patients with a high probability of having fresh blood or a clot in the stomach when undergoing endoscopy. (++OO)
- The Practice Committee recommends endoscopy to diagnose the etiology of acute UGIB. (+++O)
  The timing of endoscopy should depend on clinical factors. Urgent endoscopy (within 24 hours of presentation) is recommended for patients with a history of malignancy or cirrhosis, presentation with hematemesis, and signs of hypovolemia including hypotension, tachycardia and shock, and a hemoglobin <8 g/dL.
- The Practice Committee recommends endoscopic therapy for peptic ulcers with high-risk stigmata (active spurting, visible vessel). (++++)

The management of peptic ulcer disease (PUD) with an adherent clot is controversial. Recommended endoscopic treatment modalities include injection (sclerosants, thrombin, fibrin, or cyanoacrylate glue), cautery, and mechanical therapies.

- The Practice Committee recommends against epinephrine injection alone for peptic ulcer bleeding. If epinephrine injection is performed, it should be combined with a second endoscopic treatment modality (e.g., cautery or clips). (++++)
- The Practice Committee recommends that patients with low-risk lesions be considered for outpatient management. (+++O)
- The Practice Committee recommends against routine second-look endoscopy in patients who have received adequate endoscopic therapy. (+OOO)
- The Practice Committee recommends repeat endoscopy for patients with evidence of recurrent bleeding. (+++O)

Definitions:

Grading of Recommendations Assessment, Development and Evaluation (GRADE) System for Rating the Quality of Evidence for Guidelines

Quality of Evidence	Definition	Symbol
High quality	Further research is very unlikely to change confidence in the estimate of effect.	++++
Moderate quality	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.	+++O
Low quality	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.	++OO
Very low quality	Any estimate of effect is very uncertain.	+OOO

Adapted from Guyatt GH, Oxman AD, Vist GE, et al. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. BMJ 2008;336:924-6.

Recommendation Strength

The strength of individual recommendations is based on both the aggregate evidence quality and an assessment of the anticipated benefits and harms. Weaker recommendations are indicated by phrases such as "the Practice Committee suggests," whereas stronger recommendations are typically stated as "the Practice Committee recommends."

Clinical Algorithm(s)

None provided

Scope

Disease/Condition(s)

Acute non-variceal upper-gastrointestinal bleeding (UGIB) caused by:

- Peptic ulcer disease (PUD)
- Esophageal lesions
- Vascular malformations
- Aortoenteric fistulas
- Benign or malignant gastrointestinal tumors

Note: This guideline will not address obscure gastrointestinal (GI) bleeding or the role of endoscopy in the management of variceal bleeding, both of which are addressed in existing American Society for Gastrointestinal Endoscopy (ASGE) practice guidelines. UGIB refers to GI blood loss

having an origin proximal to the ligament of Treitz. Acute UGIB can manifest as hematemesis, "coffee ground" emesis, the return of red blood via a nasogastric tube, and/or melena with or without hemodynamic compromise. Hematochezia may occur in patients with extremely brisk UGIB.

Guideline Category

Diagnosis

Evaluation

Management

Treatment

Clinical Specialty

Gastroenterology

Intended Users

Physicians

Guideline Objective(s)

To describe the role of gastrointestinal (GI) endoscopy in patients with acute non-variceal upper gastrointestinal bleeding (UGIB)

Target Population

Patients with suspected acute non-variceal upper-gastrointestinal bleeding (UGIB)

Interventions and Practices Considered

Diagnosis/Evaluation

1. Patient history
2. Review of medications (e.g., use of aspirin or nonsteroidal anti-inflammatory drugs [NSAIDs])
3. Signs and symptoms of hypovolemia and/or shock
4. Use of Blatchford score for predicting patients at high risk for clinical intervention

Treatment/Management

1. Resuscitation using crystalloid fluids and blood products (e.g., platelets, packed red blood cells)
2. Nasogastric tube placement
3. Before-procedure intravenous proton pump inhibitor (PPI) therapy
4. Use of prokinetic agents before endoscopy
5. Early endoscopy to assess need for inpatient management
6. Injection therapy
    - Normal saline solution
    - Epinephrine (adrenaline)
    - Sclerosants (ethanol, ethanolamine, and polidocanol)
    - Thrombin
    - Fibrin
    - Cyanoacrylate glues
7. Cautery devices

- Heat probes
- Neodymium-yttrium aluminum garnet lasers
- Argon plasma coagulation (APC)
- Electrocautery probes

8. Mechanical therapy
    - Endoscopic clips
    - Endoscopic band ligation devices
9. Use of repeat endoscopy

Major Outcomes Considered

- Mortality
- Rebleeding
- Progression to surgery
- Rates of high risk stigmata
- Need for initial or repeat endoscopic therapy
- Duration of hospitalization
- Need for blood transfusion

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

In preparing this guideline, a search of the medical literature was performed by using PubMed. Additional references were obtained from the bibliographies of the identified articles and from recommendations of expert consultants. The updated literature time frame is 1990 to 2011. When few or no data exist from well-designed prospective trials, emphasis is given to results from large series and reports from recognized experts.

Number of Source Documents

Not stated

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Grading of Recommendations Assessment, Development and Evaluation (GRADE) System for Rating the Quality of Evidence for Guidelines

Quality of Evidence	Definition	Symbol

Quality of Evidence	Definition	Symbol
High quality	Further research is very unlikely to change confidence in the estimate of effect.	+++
Moderate quality	Further research is likely to have an important impact on confidence in the estimate of effect and may change the estimate.	+++O
Low quality	Further research is very likely to have an important impact on confidence in the estimate of effect and is likely to change the estimate.	++OO
Very low quality	Any estimate of effect is very uncertain.	+OOO

Adapted from Guyatt GH, Oxman AD, Vist GE, et al. GRADE: an emerging consensus on rating quality of evidence and strength of recommendations. BMJ 2008;336:924-6.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review

Description of the Methods Used to Analyze the Evidence

Not stated

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Guidelines for appropriate use of endoscopy are based on a critical review of the available data and expert consensus at the time that the guidelines are drafted.

Rating Scheme for the Strength of the Recommendations

The strength of individual recommendations is based on both the aggregate evidence quality and an assessment of the anticipated benefits and harms. Weaker recommendations are indicated by phrases such as "the Practice Committee suggests," whereas stronger recommendations are typically stated as "the Practice Committee recommends."

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

Not stated

Description of Method of Guideline Validation

Not applicable

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of supporting evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

- Appropriate management and use of endoscopy in patients with acute non-variceal upper-gastrointestinal bleeding (UGIB)
- Reduced rates of recurrent bleeding
- Reduced rate of complications

Potential Harms

Procedure-related complications appear to be more common in the presence of benign or malignant tumors.

Qualifying Statements

Qualifying Statements

- This guideline is intended to be an educational device to provide information that may assist endoscopists in providing care to patients. This guideline is not a rule and should not be construed as establishing a legal standard of care or as encouraging, advocating, requiring, or discouraging any particular treatment. Clinical decisions in any particular case involve a complex analysis of the patient's condition and available courses of action. Therefore, clinical considerations may lead an endoscopist to take a course of action that varies from these guidelines.
- Further controlled clinical studies may be needed to clarify aspects of this guideline. This guideline may be revised as necessary to account for changes in technology, new data, or other aspects of clinical practice.

Implementation of the Guideline

Description of Implementation Strategy

An implementation strategy was not provided.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Getting Better

IOM Domain

Effectiveness

Timeliness

Identifying Information and Availability

Bibliographic Source(s)

Hwang JH, Fisher DA, Ben-Menachem T, Chandrasekhara V, Chathadi K, Decker GA, Early DS, Evans JA, Fanelli RD, Foley K, Fukami N, Jain R, Jue TL, Khan KM, Lightdale J, Malpas PM, Maple JT, Pasha S, Saltzman J, Sharaf R, Shergill AK, Dominitz JA, Cash BD. The role of endoscopy in the management of acute non-variceal upper GI bleeding. Gastrointest Endosc. 2012 Jun;75(6):1132-8. [79 references] PubMed

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2004 Oct (revised 2012 Jun)

Guideline Developer(s)

American Society for Gastrointestinal Endoscopy - Medical Specialty Society

Source(s) of Funding

American Society for Gastrointestinal Endoscopy

Guideline Committee

Standards of Practice Committee

Composition of Group That Authored the Guideline

Committee Members: Joo Ha Hwang, MD, PhD; Deborah A. Fisher, MD, MHS; Tamir Ben-Menachem, MD; Vinay Chandrasekhara, MD; Krishnavel Chathadi, MD; G. Anton Decker, MD; Dayna S. Early, MD; John A. Evans, MD; Robert D. Fanelli, MD, SAGES Representative; Kimberly Foley, RN, BSN, CGRN, SGNA Representative; Norio Fukami, MD; Rajeev Jain, MD; Terry L. Jue, MD; Kahlid M. Khan, MD; Jenifer Lightdale, MD, MPH; Phyllis M. Malpas, RN, SGNA Representative; John T. Maple, DO; Shabana Pasha, MD; John Saltzman, MD; Ravi Sharaf, MD; Amandeep K. Shergill, MD; Jason A. Dominitz, MD, MHS (*Prior Chair*); Brooks D. Cash, MD (*Chair*)

Financial Disclosures/Conflicts of Interest

T. Ben-Menachem is a consultant for Boston Scientific. D. Fisher is a consultant for Epigenomics, Inc. K. Chathadi is a speaker for Boston Scientific. Rajeev Jain is a consultant for Boston Scientific and does research for Barxx. J. Saltzman is a consultant for Hemoclip Development and has a relationship with Cook Endoscopy. No other financial relationships relevant to this publication were disclosed.

Guideline Status

This is the current release of the guideline.

This guideline updates a previous version: Adler DG, Leighton JA, Davila RE, Hirota WK, Jacobson BC, Quereshi WA, Rajan E, Zuckerman MJ, Fanelli RD, Hambrick RD, Baron T, Faigel DO. ASGE guideline: the role of endoscopy in acute non-variceal upper-GI hemorrhage. Gastrointest Endosc 2004 Oct;60(4):497-504.

Guideline Availability

Electronic copies: Available in Portable Document Format (PDF) from the American Society for Gastrointestinal Endoscopy (ASGE) Web site .

Print copies: Available from the American Society for Gastrointestinal Endoscopy, 1520 Kensington Road, Suite 202, Oak Brook, IL 60523

Availability of Companion Documents

None available

Patient Resources

None available

NGC Status

This NGC summary was completed by ECRI on March 23, 2005. The information was verified by the guideline developer on March 31, 2005. This NGC summary was updated by ECRI Institute on July 31, 2012.

Copyright Statement

Disclaimer

NGC Disclaimer